



TETRA TECH EC, INC.

July 16, 2018
EMAC-RAD-18-0039

Ms. Karen Barba
Contracting Officer
Navy BRAC PMO
Attn: Environmental Contracts Core
C0DER06B2
33000 Nixie Way, Bldg. 50
San Diego, CA 9214 7

Re: Radiological Support at Hunters Point Naval Shipyard (HPNS), San Francisco, CA
Reference: RRA40.KL

Dear Ms. Barba:

This letter is Tetra Tech EC, Inc.'s ("TtEC's") response to your letter dated May 1, 2018, and follow-up letter requesting clarification on June 29, 2018, in which the Department of the Navy ("Navy") notified TtEC of its "dissatisfaction with TtEC's performance" under the sixteen identified task orders for radiological support at Hunters Point Naval Shipyard ("HPNS").

Our response focuses on addressing the contractual issues raised by the Navy in the above referenced correspondence. Regarding our performance on the 16 referenced Task Orders, the Navy did not provide any specific complaints regarding TtEC's performance, but rather states that TtEC failed "to perform its work in accordance with its contractual obligations" in support of its reference to "termination for default." The Navy did not identify specific alleged failures pursuant to the terms and conditions of TtEC's contracts and/or task orders in support of its conclusion. Rather, the Navy has relied on the draft results of CH2M Hill's analysis of TtEC's data, referred to as the "CH2M Reports" (draft Navy Reports: Radiological Evaluation Findings Report for Parcels B and G Soil, September 2017; Radiological Evaluation Findings Report for Parcels D-2, UC-1, UC-2, and UC-3 Soil, October 2017; Radiological Evaluation Findings Report for Parcel C Soil, November 2017; Radiological Evaluation Findings Report for Parcel E Soil, December 2017; Building Radiation Survey Data Initial Evaluation Report, March 2018) as ostensible "evidence" of TtEC's alleged failure to perform. As discussed in detail below, the CH2M Reports are technically flawed in their approach and findings. Thus, the Navy has not credibly established a basis for termination based upon TtEC's performance of its work pursuant to the terms and conditions of TtEC's contracts.

1. TtEC Has Fully Performed Its Scope of Services Under The 16 Task Orders

TtEC fully performed its scope of services and met the specification requirements for the 16 task orders referenced in your May 1st letter. The Navy's on-site personnel at HPNS produced a voluminous record verifying that TtEC met its contractual obligations.

The Navy's findings provide evidence of actual compliance under each task order. In January 2017, the Navy published on the BRAC HPNS community website a Radiological Data Review Fact Sheet noting: "In response to the discovery of the misrepresented sampling data by Tetra Tech EC [in 2012], the Navy initiated a comprehensive review of radiological data from soil samples collected by the contractor. After the new sampling and cleanup work was complete, independent analysis of the final data confirmed that radiological contamination had, in fact, been cleaned up properly..." This statement and the Navy's conclusions are supported by the Navy's interim and final evaluations of TtEC's work under CCASS/CPARS as follows:

Contract	Task Order	Task Order Name	Date	CSASS/PARS Evaluation
N62473-08-D-8823	0002	Fisher and Spear Avenues Storm and Sanitary Sewer Removal	11/30/2011	Outstanding
N62473-08-D-8823	0003	Crisp Road Sanitary Sewer System/Storm Drain Removal; Radiological Remediation and Support	5/17/2012	Above Average
N62473-10-D-0809	0002	Parcel C Radiological Remediation and Support	11/4/2013	Above Average
N62473-10-D-0809	0004	Basewide Radiological Support Operation at Hunters Point Naval Shipyard	11/12/2013	3 Very Good/2 Exceptional
N62473-10-D-0809	0007	Parcel E, 500 Series Area Radiological Remediation and Support	12/6/2013	1 Marginal, 1 Satisfactory, 3 Very Good, 1 Exceptional
N62473-10-D-0809	0012	Parcel C Phase II Radiological Remediation and Support	12/17/2013	4 Satisfactory, 3 Very Good (Interim CPARS)
N62473-10-D-0809	0015	Parcel E Sanitary Sewer and Storm Drain Radiological Remediation and Support	N/A	None Issued
N62473-10-D-0809	0016	Parcel C Phase III Radiological Remediation and Support	N/A	None Issued
N62473-12-D-2006	0004	Radiological Survey of Buildings 253 and 211 Parcel C at HPNS	3/4/2014	4 Very Good, 2 Exceptional (Interim CPARS)
N62473-07-D-3211	0018	Basewide Radiological Support	12/5/2012	Outstanding
N62473-07-D-3211	0019	Parcel B Sewer and Storm Drain TCRA Close Out	10/25/2011	Outstanding
N62473-06-D-2201	0003	Parcel B, D, & E-2 Draft Feasibility Study; Contingency Response; and Public Meeting Support	4/6/2009	Above Average
N62473-06-D-2201	0006	Basewide Radiological Support	11/15/2010	Outstanding
N68711-98-D-5713	0072	Basewide Radiological Surveys and Remediation	6/30/2009	Outstanding
N68711-98-D-5713	0084	TCRA and RAD Screening Parcel E PCB Soil Excavation Site	6/28/2011	Above Average
N44255-01-D-2000	0070	Parcel D (Sewer Removal and Surveys)	9/8/2010	Outstanding

The Navy's interim and final CCASS/CPARS evaluations demonstrate a minimum of "Satisfactory" compliance with the terms and conditions of the subject contracts and task orders. In most cases, however, the Navy evaluated TtEC's performance as "Above Average" and/or "Outstanding." These evaluations fully support TtEC compliance with the task orders.

When the Navy and TtEC found soil sampling issues in 2012, TtEC immediately reviewed and remedied the prior work to the Navy's full satisfaction, which culminated in a 2014 report issued by TtEC. The investigation that led to the 2014 TtEC report was conducted under Navy's

oversight and thoroughly commented on and reviewed by the Navy. The Navy also conducted an independent review and released its own report in 2014, concluding that: “The Navy’s contractor corrected and identified deficient conditions and incorporated additional QC steps to avoid recurrence” (Anomalous Soil Sampling Investigation, Hunters Point Naval Shipyard, NAVFAC Southwest, April 23, 2014). By 2015, the Navy had conducted Final Site Surveys (FSS) that validated that TtEC had met all applicable contractual requirements.

TtEC is aware that the Navy issued “addenda” to five of the final CPARS evaluations which were generated, in most cases, many years after “final” evaluations were first issued, and which were based on and referenced unsubstantiated public comments. TtEC has previously disputed the Navy’s basis of revising the CPARS (See February 13, 2018 correspondence from James Sanders to George Brooks). Although characterized as “new evidence”, the Navy performed no new testing and, instead, relied upon the technically flawed CH2M Reports to assess TtEC’s performance.

2. CH2M Reports are Technically Flawed and Do Not Provide a Basis for Default

The CH2M Reports, which are still in draft form, do not prove any contractual failure on the part of TtEC. None of the draft reports validate the conclusion that there were problems with TtEC’s work beyond those TtEC previously identified and corrected with the concurrence of the Navy as a result of the investigation of the issues discovered in 2012.

The methodology applied in the CH2M Reports is fundamentally flawed. The methodology is based on arbitrary logic tests, and misapplied statistical and graphical tests to evaluate the previously collected data. Results in the CH2M Reports are inconclusive and only allege a “potential” for manipulation or falsification of the data. The CH2M Reports were not designed or developed to confirm or question that the contractual delivery and results of the 16 task orders were achieved. Variability in site conditions, changes in technology, limitations inherent in the technical approach and even human error are the most plausible reasons for the issues identified in the CH2M Reports.

The CH2M Reports have the following specific issues, which clearly undermine their relevance to any assessment of TtEC’s contractual performance and obligations under the referenced task orders.

- **A flawed statistical design was applied that would prove “potential” discrepancies in *any* data set from any comparable site.** Statistical analyses of data must follow specific rules to generate reliable results. The reviewers’ analyses assume that the theory (manipulation or falsification of the data) is true. Then they look for matches in the data set that confirm their theory. They omitted an essential step, i.e., demonstrating that no other plausible theory fits the data even better.
- The CH2M Reports use inappropriate statistical tests and filters which generate false and biased conclusions. The tests applied to the data would likely flag the majority of *any* sampling surveys conducted during *any* remediation at *any* site.

- The reports systematically misinterpret test results—some of them applied thousands of times, like the K-S test—and consequently generate an impression of overwhelming problems by multiplying their own errors a thousandfold.
- The reports overlook extensive documentation in the project documents, including the Remedial Action Completion Reports (RACRs) and the Survey Unit Project Reports and Abstracts (SUPRs and SUPRAs), that identify the issues highlighted in the CH2M Reports and explain how they were addressed. These documents include evidence of formal Navy and US EPA Region IX concurrence.
- **Incorrect assumption of a uniform site condition in designing the analysis.** The CH2M Reports assume that HPNS contains uniform conditions within any individual decision unit (the trench units, survey units, and excavated soil units). As the Navy and other agencies know, and have stated on numerous occasions (see below), the HPNS site is highly non-uniform and comprised of a highly variable mixture of fill dirt, debris, and dredge materials. Statistical tests and analysis of the data used in the CH2M Reports assume uniform conditions resulting in an incorrect conclusion that data variability represents “potential falsification.”
 - *“HPS consists primarily of fill materials from **hundreds of sources** (emphasis added) and it is recognized that there is high variability of Ra-226 as well as other naturally occurring radionuclides in the soil.” (NAVSEADET RASO Comments, June 13, 2011)*
 - *“Artificial Fill is placed over all naturally occurring deposits and basement. Fill deposits are up to 60 feet or more thick. The Artificial Fill is **extremely heterogeneous and consists of sandy clays and gravels to poorly graded sands, boulder, and debris deposits** (emphasis added).” (Remedial Investigation Report for Parcel D, PRC, Inc., October 25, 1996)*
- **The CH2M Reports provided no evaluation of the TtEC task orders’ performance requirements.** The CH2M Reports did not consider the specific scope of work and requirements in their analysis.
 - There were no contractual requirements or technical reasons that all “FSS” systematic samples should be sampled on the same day. The CH2M Reports identify a lack of same-day sampling as a potential “flag” indicating “potential” data manipulation, which is arbitrary and meaningless as an indication of falsification.
 - There were no contractual or scientific requirements that the on-site lab must analyze the samples it received within two days or even within two weeks, as two of the CH2M logic tests assumed. The CH2M Reports “flag” samples that were not analyzed in two days or two weeks after sampling as suspect. For example, samples collected on Friday and analyzed on the following Monday would automatically “fail” this false test. In addition, the Navy used the on-site lab to analyze data from other contractors and, due to varying priorities, the Navy often instructed the lab to prioritize analysis of another contractor’s samples over TtEC’s samples, rendering the two-day and two-week criterion impracticable. Since the

on-site lab did not run 24/7 and there was no requirement that samples be analyzed on these schedules, these two logic tests are arbitrary and meaningless with regards to data falsification.

- The CH2M Reports inappropriately assess building scan speeds in ways that are contrary to the Navy's own guidance provided to TtEC in 2013. For example, all survey units in Building 113 were incorrectly flagged by the CH2M Reports as exceeding the required scan speed.
- The CH2M Reports failed to consider the Navy guidance issued in 2013 that allowed scan speeds to be determined based on the probability of detection, and the acceptance by the Navy of all scan speeds applied prior to the 2013 guidance. The 2013 guidance and Navy acceptance was presented to the State regulators (September 2014 NAVFAC/RASO presentation). In addition, the State of California conducted its own investigation and agreed with the Navy that the applied scan rates were acceptable. TtEC conducted additional studies on scan speeds that support the Navy guidance and demonstrate that the applied scan speeds were adequate for their purpose. The TtEC field study was referred by the Navy in support of its 2013 guidance.
- For building scans, data duplication of select records is interpreted/assumed to be potential data manipulation (Building Radiation Survey Data Initial Evaluation Report, Former Hunters Point Naval Shipyard San Francisco, California, Department of the Navy Naval Facilities Engineering Command Base Realignment and Closure Program Management Office West, March 2018. See Executive Summary and Section 6). CH2M failed to consider benign explanations, such as human error in downloading data which was a common concern using the technology available at that time. Human error would be expected to be on the order of 3-5% at that time.
- **Improper assessment of “standard of care”.** Any project, data collection effort, or monitoring program recognizes that some human error will be encountered and addressed.
- **Mischaracterization of the conclusions.** There has been blatant mischaracterization of the conclusions of the CH2M Reports to be “evidence” of data manipulation, when discussion in the document indicates “potential” falsification as well as recognizing other “potential” explanations.
- **Failure to account for documented, allowable decision error rates.** Extensive discussion of laboratory data quality, inter-laboratory variability, analytical reproducibility, and achievable detection limits is documented in the SUPRAs generally and in the SUPRs for every decision unit. The Base-Wide plan as well as the TSPs, which govern the investigation and remediation of each decision unit, contain quantitative data quality objectives (DQOs) that explicitly allow for a non-negligible chance of statistical error. A 2009 letter from the US EPA Region IX to the California Department of Public Health explains why such statistical error and analytical and sampling variation is allowable and still is extremely conservative in protecting human health and demonstrating the attainment of the free release criteria (EPA Acceptance of Hunters Point On-Site Laboratory Results

For Radiological Analysis, Signed by Michael M. Montgomery, Assistant Director of Federal Facilities and Site Cleanup Branch, US EPA Region 9, December 15, 2009). The CH2M Reports neglect this context and do not properly account for it in their criticism.

3. Burden of Proof for Termination for Default

The Navy indicated in its May 1st letter that it is evaluating contractual remedies, including the possibility of termination for default. There is simply no basis in fact or law to support termination for default as raised in the letter. TtEC will vigorously challenge any such effort.

Courts and boards hold the government to a high standard when terminating a contract for default because of the adverse impact such an action has on a contractor. *Lisbon Contractors, Inc. v. United States*, 828 F.2d 759 (Fed. Cir. 1987) (“[A] termination for default is a drastic sanction [citation omitted] that should be imposed upon a contractor only for good cause and in the presence of solid evidence.”); *Mega Constr. Co. v. United States*, 25 Cl. Ct. 735 (1992). The Navy carries the burden of proof in establishing that a default termination is justified. *See Truckla Services, Inc.*, 2017 ASBCA Nos. 57564, 577752 Lexis 29 (Jan. 26, 2017). As discussed above, Navy has no good cause or solid evidence today upon which the Navy could justify a termination for default.

It is important to remember that TtEC is only responsible for meeting those requirements found within the subject contracts. It does not and cannot control the political environment, nor is it responsible for obtaining the free release of any parcels. Nevertheless, we desire for the Navy and TtEC to reliably, efficiently, and transparently confirm that TtEC met its contractual obligations, for the sake of both parties as well as the HPNS local community.

TtEC wishes to reiterate its desire to engage in a constructive dialogue on the issues raised and is available to meet with the Navy as appropriate.

Sincerely,

A handwritten signature in blue ink, appearing to read "A.N. Bolt".

A.N. Bolt, PE, PMP
President
Tetra Tech EC, Inc.